CITY OF Fremont

FASTENING SCHEDULE 2010 CALIFORNIA BUILDING CODE TABLE 2304.9.1

CONNECTION	FASTENING	LOCATION
1. Joist to sill or girder	3 - 8d common ($2^1/_2$″ × 0.131″) 3 - 3″ × 0.131″ nails 3 - 3″14 gage staples	toenail
2. Bridging to joist	2 - 8d common ($2^1/_2$″ × 0.131″) 2 - 3″ × 0.131″ nails 2 - 3″ 14 gage staples	toenail each end
3. 1″ × 6″ subfloor or less to each joist	2 - 8d common ($2^1/_2$″ × 0.131″)	face nail
4. Wider than 1″ × 6″ subfloor to each joist	3 - 8d common ($2^1/_2$″ × 0.131″)	face nail
5. 2″ subfloor to joist or girder	2 - 16d common ($3^1/_2$″ × 0.162″)	blind and face nail
6. Sole plate to joist or blocking Sole plate to joist or blocking at braced wall panel	16d ($3^1/_2$″ × 0.135″) at 16″ o.c. 3″ × 0.131″ nails at 8″ o.c. 3″14 gage staples at 12″ o.c. 3- 16d ($3^1/_2$″ × 0.135″) at 16″ o.c. 4 - 3″ × 0.131″ nails at 16″ o.c. 4 - 3″14 gage staples at 16″ o.c.	typical face nail braced wall panels
7. Top plate to stud	2 - 16d common ($3^1/_2$″ × 0.162″) 3 - 3″ × 0.131″ nails 3 - 3″14 gage staples	end nail
8. Stud to sole plate	4 - 8d common ($2^1/_2$″ × 0.131″) 4 - 3″ × 0.131″ nails 3 - 3″14 gage staples 2 - 16d common ($3^1/_2$″ × 0.162″) 3 - 3″ × 0.131″ nails 3 - 3″14 gage staples	toenail end nail
9. Double studs	16d ($3^1/_2$″ × 0.135″) at 24″ o.c. 3″ × 0.131″ nail at 8″ o.c. 3″14 gage staple at 8″ o.c.	face nail
10. Double top plates Double top plates	16d ($3^1/_2$″ × 0.135″) at 16″ o.c. 3″ × 0.131″ nail at 12″ o.c. 3″14 gage staple at 12″ o.c. 8 - 16d common ($3^1/_2$″ × 0.162″) 12 - 3″ × 0.131″ nails 12 - 3″14 gage staples	typical face nail lap splice
11. Blocking between joists or rafters to top plate	3 - 8d common ($2^1/_2$″ × 0.131″) 3 - 3″ × 0.131″ nails 3 - 3″14 gage staples	toenail
12. Rim joist to top plate	8d ($2^1/_2$″ × 0.131″) at 6″ o.c. 3″ × 0.131″ nail at 6″ o.c. 3″14 gage staple at 6″ o.c.	toenail
13. Top plates, laps and intersections	2 - 16d common ($3^1/_2$″ × 0.162″) 3 - 3″ × 0.131″ nails 3 - 3″14 gage staples	face nail
14. Continuous header, two pieces	16d common ($3^1/_2$″ × 0.162″)	16″ o.c. along edge
15. Ceiling joists to plate	3 - 8d common ($2^1/_2$″ × 0.131″) 5 - 3″ × 0.131″ nails	toenail

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	5 - 3″14 gage staples	
16. Continuous header to stud	4 - 8d common ($2^1/_2$″ × 0.131″)	toenail
17. Ceiling joists, laps over partitions (see Section 2308.10.4.1, Table 2308.10.4.1)	3 - 16d common ($3^1/_2$″ × 0.162″) minimum, Table 2308.10.4.1 4 - 3″ × 0.131″ nails 4 - 3″14 gage staples	face nail
18. Ceiling joists to parallel rafters (see Section 2308.10.4.1, Table 2308.10.4.1)	3 - 16d common ($3^1/_2$″ × 0.162″) minimum, Table 2308.10.4.1 4 - 3″ × 0.131″ nails 4 - 3″14 gage staples	face nail
19. Rafter to plate (see Section 2308.10.1, Table 2308.10.1)	3 - 8d common ($2^1/_2$″ × 0.131″) 3 - 3″ × 0.131″ nails 3 - 3″14 gage staples	toenail
20. 1″ diagonal brace to each stud and plate	2 - 8d common ($2^1/_2$″ × 0.131″) 2 - 3″ × 0.131″ nails 3 - 3″14 gage staples	face nail
21. 1″ × 8″ sheathing to each bearing	3 - 8d common ($2^1/_2$″ × 0.131″)	face nail
22. Wider than 1″ × 8″ sheathing to each bearing	3 - 8d common ($2^1/_2$″ × 0.131″)	face nail
23. Built-up corner studs	16d common ($3^1/_2$″ × 0.162″) 3″ × 0.131″ nails 3″14 gage staples	24″ o.c. 16″ o.c. 16″ o.c.
24. Built-up girder and beams	20d common (4″ × 0.192″) 32″ o.c. 3″ × 0.131″ nail at 24″ o.c. 3″14 gage staple at 24″ o.c. 2 - 20d common (4″ × 0.192″) 3 - 3″ × 0.131″ nails 3 - 3″14 gage staples	face nail at top and bottom staggered on opposite sides face nail at ends and at each splice
25. 2″ planks	16d common ($3^1/_2$″ × 0.162″)	at each bearing
26. Collar tie to rafter	3 - 10d common (3″ × 0.148″) 4 - 3″ × 0.131″ nails 4 - 3″14 gage staples	face nail
27. Jack rafter to hip	3 - 10d common (3″ × 0.148″) 4 - 3″ × 0.131″ nails 4 - 3″14 gage staples 2 - 16d common ($3^1/_2$″ × 0.162″) 3 - 3″ × 0.131″ nails 3 - 3″14 gage staples	toenail face nail
28. Roof rafter to 2-by ridge beam	2 - 16d common ($3^1/_2$″ × 0.162″) 3 - 3″ × 0.131″ nails 3 - 3″14 gage staples 2 -16d common ($3^1/_2$″ × 0.162″) 3 - 3″ × 0.131″ nails 3 - 3″14 gage staples	toenail face nail
29. Joist to band joist	3 - 16d common ($3^1/_2$″ × 0.162″) 4 - 3″ × 0.131″ nails 4 - 3″14 gage staples	face nail
30. Ledger strip	3 - 16d common ($3^1/_2$″ × 0.162″) 4 - 3″ × 0.131″ nails 4 - 3″14 gage staples	face nail at each joist
31. Wood structural panels and particleboard[b] Subfloor, roof and wall sheathing (to framing)	**$^1/_2$″ and less** 6d[c, 1] $2^3/_8$″ × 0.113″ nail[n] $1^3/_4$″16 gage[o] **$^{19}/_{32}$″ to ¾** 8d[d]or 6d[e] $2^3/_8$″ × 0.113″ nail[p]	

Single floor (combination subfloor-underlayment to framing)		2″16 gage[p]	
	$^{7}/_{8}$″ to 1″	8d[c]	
	$1^{1}/_{8}$″ to $1^{1}/_{4}$″	10d[d]or 8d[e]	
	$^{3}/_{4}$″ and less	6d[e]	
	$^{7}/_{8}$″ to 1″	8d[e]	
	$1^{1}/_{8}$″ to $1^{1}/_{4}$	10d[d]or 8d[e]	
32. Panel siding (to framing)	$^{1}/_{2}$″ or less	6d[f]	
	$^{5}/_{8}$″	8d[f]	
33. Fiberboard sheathing[g]	$^{1}/_{2}$″	No. 11 gage roofing nail[h]	
		6d common nail (2″ × 0.113″)	
		No. 16 gage staple[i]	
	$^{25}/_{32}$″	No. 11 gage roofing nail[h]	
		8d common nail ($2^{1}/_{2}$″ × 0.131″)	
		No. 16 gage staple[i]	
34. Interior paneling	$^{1}/_{4}$″	4d[j]	
	$^{3}/_{8}$″	6d[k]	

a. Common or box nails are permitted to be used except where otherwise stated.
b. Nails spaced at 6 inches on center at edges, 12 inches at intermediate supports except 6 inches at supports where spans are 48 inches or more. For nailing of wood structural panel and particle board diaphragms and shear walls, refer to Section 2305. Nails for wall sheathing are permitted to be common, box or casing.
c. Common or deformed shank (6d – 2” x 0.113”; 8d – 2 ½” x 0.131; 10d – 3”x.148”)
d. Common (6d – 2” x .113”; 8d – 2 ½” x131”; 10d – 3” x .148”)
e. Deformed shank (6d – 2” x .113”; 8d – 2 1/2” x 0.131; 10d – 3” x 0.148”)
f. Corrosion-resistant siding (6d – 1 7/8” x 0.106”; 8d – 2 3/8” x 0.128”) or casing (6d – 2” x 0.099”; 8d – 2 ½” x 0.113”) nail
g. Fasteners spaced 3 inches on center at exterior edges and 6 inches on center at intermediate supports, when used as structural sheathing. Spacing shall be 6 inches on center on the edges and 12 inches on center at intermediate supports for nonstructural applications.
h. Corrosion-resistant roofing nails with 7/16” diameter head and 1 1/2” length for ½” sheathing and 1 ¾” length for $^{25}/_{32}$″ sheathing
i. Corrosion-resistant staples with nominal 7/16” crown or 1” crown and 1 ¼” length for ½” sheathing and 1 ½” length for $^{25}/_{32}$″ sheathing. Panel supports at 16 inches (20 inches if strength axis in the long direction of the panel, unless otherwise marked.)
j. Casing (1 ½” x 0.080”) or finish (1 ½” x 0.072”) nails spaced 6 inches on panel edges, 12 inches at intermediate supports.
k. Panel supports at 24 inches, casing or finish nails at 6 inches on panel edges, 12 inches at intermediate supports.
l. For roof sheathing applications, 8d (2 ½” x 0.113) are the minimum required for wood structural panels.
m. Staples shall have a minimum crown width of 7/16 inch.
n. For roof sheathing applications, fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports.
o. Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports for subfloor and wall sheathing and 3 inches on center at edges, 6 inches at intermediate supports for roof sheathing.
p. Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports.